CLAIMS

What is claimed is:

1.   A graphical user interface, comprising:

a tracking symbol positioned corresponding to an input transducer movable by a user; and

a mobile tracking region having a region boundary enclosing the tracking symbol with the tracking symbol being movable within the boundary with the region moving in correspondence to the tracking symbol when the tracking symbol encounters the boundary while moving, and the region having controls activatable when the tracking symbol corresponds to the controls.

2.   An interface as recited in claim 1, wherein the region comprises a menu having visible menu edge.

3.   An interface as recited in claim 1, wherein the region comprises one of a linear menu, a menu with an embedded marking menu, a tool palette, a color palette, a pan-zoom tool, a pen-mouse, a keyboard, a numeric pad, one or more buttons, sliders, checkboxes, pull-down menu, a dialog box, and an alternative view.

4.   An interface as recited in claim 1, wherein the controls of the interface further comprise a control changed in appearance when the tracking symbol is over the control and is active.

5.   An interface as recited in claim 1, wherein the region is semi-transparent when the tracking symbol is inactive and transparent when the tracking symbol is active.

6.   An interface as recited in claim 1, wherein the tracking symbol can be activated by the user and performs a selected function when active.

7.   An interface as recited in claim 6, wherein a selected function is performed when the tracking symbol is active.

8.　　An interface as recited in claim 6, wherein the transducer corresponds to a stylus, the tracking symbol and region are displayed on a tablet display, and the tracking symbol is activated when the stylus touches the tablet.

9.　　An interface as recited in claim 6, wherein the tracking symbol is inactive when the stylus is not touching the tablet.

10.　　An interface as recited in claim 6, wherein the transducer corresponds to a mouse having a mouse button, the tracking symbol and region are displayed on a tablet display, and the tracking symbol is activated when the mouse is one of moved and activated.

11.　　An interface as recited in claim 1, wherein the positioning corresponding to the motion of the input transducer stops under a predetermined condition and the region is repositioned corresponding to the tracking symbol when the condition no longer exists.

12.　　An interface as recited in claim 11, wherein the repositioning positions the menu a least Euclidean distance from the prior position.

13.　　An interface as recited in claim 11, wherein the predetermined condition is a stylus out-of-range condition.

14.　　An interface as recited in claim 1, wherein the boundary is maintained around the symbol.

15.　　An interface as recited in claim 1, wherein the symbol is allowed to cross the boundary while moving and the boundary surrounds the symbol when the symbol is not moving.

16.　　An interface as recited in claim 1, wherein the user designates that the region be held in place when the symbol crosses the boundary.

17.　　An interface as recited in claim 16, wherein the interface comprises an outline of the mobile tracking region when the tracking symbol is over a persistent object.

18.   An interface as recited in claim 17, wherein the interface is clipped when the tracking symbol exits the persistent object.

19.   An interface as recited in claim 1, wherein the mobile tracking region deforms corresponding to a shape of a persistent object when the symbol comes in a vicinity of a persistent object or display edge.

20.   An interface as recited in claim 1, further comprising an interior tracking boundary interior to the region boundary and the region moving in correspondence to the tracking symbol when the tracking symbol encounters the interior tracking boundary.

21.   An interface as recited in claim 20, wherein the interior tracking boundary comprises a jutting wall.

22.   An interface as recited in claim 1, wherein the interface has a visible edge and the boundary corresponds to one of the visible edge, outside the visible edge, inside the visible edge and overlaps the visible edge.

23.   An interface as recited in claim 1, wherein control activation requires a dwell by the tracking symbol.

24.   An interface as recited in claim 1, wherein control functionality is context sensitive.

25.   An interface, comprising:
a first tracking symbol having a first tracking symbol position controllable by the user; and
a second tracking symbol containing the first tracking symbol, having a second tracking symbol position controlled by the first tracking symbol and having objects selectable by the first tracking symbol.

26.   An interface as recited in claim 25, wherein the first and second tracking symbol positions correspond.

27.   An interface as recited in claim 25, wherein the objects comprise controls.

28.   An interface, comprising:

a display;

a tracking menu positioned above the display, having an edge and having controls positioned in the menu;

a tracking symbol positioned above the menu, encountering the edge when moved and moving the menu when the edge is encountered.

29.   An interface as recited in claim 28, further comprising a graphic object positioned between the menu and the display.

30.   An interface as recited in claim 28, further comprising a persistent graphic object positioned between tracking symbol and the menu.

31.   A graphical user interface, comprising:

a tracking symbol positioned corresponding to a stylus input transducer movable by a user; and

a mobile tracking menu region having a region boundary enclosing the tracking symbol with the tracking symbol being movable within the boundary with the region moving in correspondence to the tracking symbol when the tracking symbol encounters the boundary while moving, the menu region having visible menu edge, the menu region having button controls activatable when the tracking symbol corresponds to the controls with a control changed in appearance when the tracking symbol is over the control and is active, the menu region being semi-transparent when the tracking symbol is inactive and transparent when the tracking symbol is active, where the tracking symbol can be activated by the user selecting one of the controls and performs a selected function when active,

wherein the tracking symbol and region are displayed on a tablet display, and the tracking symbol is activated when the stylus touches the tablet,

wherein the positioning corresponding to the motion of the input transducer stops when the stylus is out of range of the tablet and the menu region is repositioned a least Euclidean distance from the prior position corresponding to the tracking symbol when the condition no

longer exists,

wherein the interface comprises an outline of the mobile tracking region when the tracking symbol is over a persistent object and the interface is clipped as the tracking symbol exits the persistent object, and

wherein the mobile tracking region deforms corresponding to a shape of a persistent object when the symbol comes in a vicinity of a persistent object or display edge.

32. A method, comprising:

allowing a user to move a tracking symbol on a display; and

moving a tracking menu in correspondence to the symbol when the symbol encounters an edge of the menu.

33. A method as recited in claim 32, further comprising allowing a user to select an item in the tracking menu without moving the tracking menu.

34. A method as recited in claim 32, wherein movement of the tracking symbol is responsive to movement by the user of a stylus over a stylus sensing tablet and the moving of the tracking menu occurs when the stylus is in tracking range of the tablet.

35. A method as recited in claim 34, further comprising making the tracking menu transparent when the stylus touches the tablet.

36. A method as recited in claim 35, further comprising performing a graphic function corresponding to motion of the stylus when the menu is transparent.

37. A method as recited in claim 36, wherein the function is makes a mark on the display.

38. A method as recited in claim 32, wherein movement of the tracking symbol is responsive to movement by the user of a stylus over a stylus sensing tablet and further comprising positioning the tracking menu in correspondence when the stylus comes into tracking range.

39.   A method as recited in claim 32, wherein movement of the tracking symbol is responsive to movement by the user of a stylus over a stylus sensing tablet and further comprising positioning the tracking menu in correspondence when the stylus ends contact with the tablet.

40.   A method as recited in claim 32, further comprising allowing the user to designate a position for the menu and allowing the tracking symbol to cross the edge without moving the menu.

41.   A method as recited in claim 32, further comprising converting the menu to an outline when the symbol crosses a boundary of a persistent object.

42.   A method as recited in claim 41, further comprising:
converting the menu to a complete graphical menu when the symbol exist the persistent object; and
clipping a portion of the complete graphical menu overlapping the persistent object.

43.   A method as recited in claim 32, further comprising deforming a shape of the menu to an outline when the symbol approaches a boundary of a persistent object or display edge.

44.   A method, comprising moving a first tracking symbol responsive to movement of second tracking symbol and moving the second tracking symbol responsive to an input transducer.

45.   A method, comprising using a single cursor movement to both move and activate a mobile control.

46.   An apparatus, comprising:
a position transducer;
a display; and
a computer coupled to the display and the transducer, and producing for display a first tracking symbol having a first tracking symbol position controllable by the transducer and a

second tracking symbol containing the first tracking symbol, having a second tracking symbol position controlled by the position of the first tracking symbol and having controls selectable by the first tracking symbol.

47.   A computer readable storage controlling a computer by allowing a user to move a tracking symbol on a computer display; and moving a tracking menu in correspondence to the symbol when the symbol encounters an edge of the menu.

48.   A computer readable storage controlling a computer with a first tracking symbol having a first tracking symbol position controllable by the user; and a second tracking symbol containing the first tracking symbol, having a second tracking symbol position controlled by the first tracking symbol and having objects selectable by the first tracking symbol.

49.   A graphical user interface, comprising:

a display area that tracks a cursor tool when the cursor tool reaches a boundary of the area and that has a display function; and

the cursor tool movable within the area and that drags the area around when the boundary is reached and being activated by an input event.